AMSC Association of Michigan School Counselors

Comments Provided To The Lieutenant Governor's Commission on Higher Education and Economic Growth

By Denise Verner, AMSC President 2004-2005

December 2, 2004

Lt. Governor Cherry, and Commission members, thank you for the opportunity to provide these comments addressing the role of the school counselor in preparing young people to succeed in a 21st Century Economy. My name is Denise Verner and I am the President of the Association of Michigan School Counselors (AMSC). School counselors play a significant role in preparing young people to successfully participate in post-secondary education. In fact, school counselors provide career guidance to students in kindergarten through 12th grade. AMSC looks forward to working with the Commission on means of expanding post-secondary opportunities for youth, and maximizing students' success in these and other pursuits.

Our comments are organized as follows:

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On behalf of the members of the Association of Michigan School Counselors, I appreciate your consideration of these comments as the Commission develops its recommendations. Please do not hesitate to contact me with any questions or comments at (586) 723-2354.

Comments Provided By AMSC To The Lieutenant Governor's Commission on
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I. INTRODUCTION TO SCHOOL COUNSELING

A. What is AMSC?

The Association of Michigan School Counselors (AMSC) provides leadership and support for the profession of counseling in K-12 education through advocacy and professional development. It represents over 700 school counselors statewide.

AMSC strives to support and enhance the practice of counseling in elementary through high school settings, to promote ethical and responsible professional practice, and to promote communication and exchange among school counselors. AMSC also encourages cooperation with other organizations and associations related to K-12 education, student development, and the education of professional school counselors.

B. School Counselor Education and Training Requirements

School counseling is regulated in Michigan by statute (Public Act 288 of 200, MCL 380.1233) and administrative rule (R 390.1301 - 1305 - anticipate revision of rules in coming year).

School Counselors must possess one of the following credentials (issued by the Michigan Department of Education):
1) Guidance Counselor (NT) Endorsement on a valid Michigan Teaching Certificate;
2) Preliminary Employment Authorization to Work as a School Counselor;
3) Temporary Employment Authorization; or
4) School Counselor License (for individuals who do not hold a teaching certificate).

Each credential requires an approved school counselor education program that included at least all of the following skills and content areas or their equivalent:

- *guidance services--philosophy, principles, and practice;*
- *individual and group analysis--nature and range of human characteristics and appraisal methods;*
- *guidance information--vocational development theory; educational and occupational information; counseling theory and practice--individual and group procedures, administration and coordination relationships, professional relationships, and ethics;*
- *supervised experiences--laboratory, practicum, or internship; and,*
- *evaluation--statistics and research methodology, follow-up evaluation, and measurement methods.*

In addition to possessing one of the four credentials listed above, a school counselor must successfully complete the Michigan Department of Education's Michigan Test for Teacher Certification Guidance Counselor examination, pass a

criminal history check, and be recommended by an approved School Counselor Education program.

Currently there are 2,924 school counselors in Michigan, many of whom are also Licensed Professional Counselors or "LPCs" (a masters or doctoral level clinical counseling license, PA 421 of 1988)

C. What is a School Counselor?

Professional school counselors provide services to K-12 students, parents, school staff and the community in the following areas:

School Guidance Curriculum - In our state, the Michigan Comprehensive Guidance and Counseling Program. More detail to follow in Sect. I. F. (and Attachment B). Using this curriculum, school counselors, meet with students in small groups or classrooms, and guide and direct them with the use of interest inventories, conversation, aptitude testing (which includes accurate assessment of math and reading levels). This will help them leave high school with information about not just colleges, but colleges that provide the training for positions that match the students' interests and aptitudes.

Individual Student Planning - Professional school counselors coordinate ongoing systemic activities designed to help students establish personal goals and develop future plans.

Responsive Services - Responsive services are preventative and/or interventive activities meeting students' immediate and future needs. These needs can be necessitated by events and conditions in students' lives and may require any of the following:

- individual or group counseling;
- conflict resolution;
- consultation with parents, teachers and other educators;
- referrals to other school support services or community resources;
- peer helping;
- information.

Professional school counselors develop confidential relationships with students to help them resolve or cope with problems and developmental concerns.

System Support - System support consists of management activities establishing, maintaining and enhancing the total school counseling program. These activities include professional development, consultation, collaboration, program management and operations. Professional school counselors are committed to continual personal and professional development and are proactively involved in professional organizations promoting school counseling at the local, state and national levels.

School Climate - Counselors have an impact not only on students through direct services, as identified above, but they also impact the school climate by serving on School Improvement teams, advisory committees, NCA teams in their schools, and other committee assignments.

D. A Day In the Life of a Mid-Michigan School Counselor

Here, in her own words, a Mid-Michigan School Counselor describes a "typical" (!) day:

"The one thing you can count on is that there is no such thing as typical! The best thing about being a school counselor is the variety in the work. The worst thing about being a school counselor is the variety in the work! It is impossible to go into work and plan what you will get done, because the function of the job is to be responsive to the needs of others. It might be that a counselor has planned to present to 8th grade social studies teachers a new curriculum idea, and the counselor arranged to meet with each SS teacher during their different planning hours. However, the first hour meeting with the teacher starts an ½ hour late, because a student is distraught due to her grandmother's death, and she just can't stop crying in class, and the teacher sent her to the counselor's office. Second hour, the Assistant Principal asks the counselor to sit in with him while he interviews a girl who is alleging that she is being sexually harassed by boys on the bus on the way to school. Third hour she actually gets to meet with one of the SS teachers. Fourth hour she has a small group of students that meet every other Tuesday, whose parents are recently divorced, so she can't meet with the teachers then either. She does manage to meet with the teachers the last hour of the day again....until her secretary tracks her down and says that a Protective Services worker just showed up and wants to interview a student..."

E. Effectiveness of School Counseling

In addition to the reports listed below, please see Attachment C: "High School Career Exploration Programs: Do They Work?" (Visher, Bhandari, Medrich, Phi Delta Kappan. October 2004, Vol. 86, Iss. 2). In this article, Visher et al report that:

> **"We found convincing evidence that career exploration programs are improving the future prospects of a large and diverse group of high school students by increasing the likelihood that they will graduate and go on to postsecondary education."**

Other studies report:

> **Students underestimated the level of education they may need to obtain their career goals when they attended high schools that did not support students in preparing and planning for their future. This lack of support may be due to a number of reasons including the lack of a comprehensive and guidance program, understaffed guidance offices, or lack of administrative and teacher support.**
>
> *Schneider and Stevenson (1999)*

> **Based on its research, the Institute for Medicine recommended that mental health and psychological services were essential for many students to achieve academically, and should be considered mainstream, not optional services.**
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> *(Olsson, Klaren (200) Sorrow Plain and Hollow. U.S. News and World Report. November 27, 2000)*

School counselors, due to their training, experience and accessibility are considered to be the best equipped to develop and implement both prevention and intervention programs for youth at risk.

(Testimony of Bettie Shaw-Henderson, District Manager, MI Dept. of Career Development and Rehabilitation Services, to the Subcommittee on Twenty-First Century Competitiveness, Committee on Education and Workforce, March 11, 2003.)

Students who attended schools with more fully implemented guidance programs rated the climate in their schools as being more positive, reported great feelings of belonging and safety in their schools, indicated that their classes were less likely to be interrupted by other students, that their peers behaved better in school, and that more career and college information was made available to them. Also, students reported earning higher grades.

(Substance Abuse and Mental Health Services Administration (SAMHSA), (1997) The National Treatment Improvement Evaluation Study.)

Studies of the effects of a small group counseling approach for failing elementary school students found that 83 percent of students showed improvement in grades.

(Substance Abuse Treatment is Cost-Effective, federal survey cited in Mental Health Report, February 5, 1999.)

The School Dropout Assistance Program (1991-1996) funded a number of projects to test and evaluate the effect of promising strategies for dropout prevention and reentry. The results found that counseling services were one of the key elements of any particular dropout prevention initiative.

(Lapan, R; Gyshers, N. & Sun, Y (1997) The Impact of More Fully Implemented Guidance Programs on the School Experiences of High School Students: A Statewide Evaluation Study Journal of Counseling and Development 75(4) 292-302)

F. The Michigan Comprehensive Guidance and Counseling Program

Perhaps one of the most valuable tools available to Michigan schools, parents and students is the "Michigan Comprehensive Guidance and Counseling Program." Approved by the State Board of Education and a key component of the state's Career Preparation System, the Michigan Comprehensive Guidance and Counseling Program provides a method for school counselors within their school districts to organize their efforts to proactively address the needs of students.

The mission of the program is to assure that all students acquire and demonstrate competencies in the areas of academic, personal-social, and career development. Its purpose is to help districts plan, develop, implement, and evaluate comprehensive and systematic guidance and counseling programs which accomplish this goal. When implemented, the program becomes an integral part of the school's total educational program, with school counselors working in collaboration with students, parents/families, teachers, administrators, and the community.

At the heart of the program, and one of its four components, is the Guidance Curriculum, which consists of structured developmental experiences presented through classroom and group activities kindergarten through twelfth grade. The student competencies are organized around three content areas: Career Development, Personal-Social Development, and Academic Development. A needs survey is used to customize learning activities to school/community priorities. This program offers sequentially planned activities, including violence prevention and peer mediation, which meet the needs of children as they grow and progress from one grade level to the next. The Michigan model is prevention-oriented, and is intended to be an integral part of each school's total educational program and stresses collaboration with other educational professionals.

II. BARRIERS TO EFFECTIVE GUIDANCE AND COUNSELING SERVICES

A. Inadequate Access to School Counseling Services

1. School Counselor-to-Pupil Ratios Inadequate

The American School Counselor Association recommends a 250-to-1 ratio of students to counselors, while the Michigan Department of Education policy recommends a ratio of 400 to 1 in elementary schools and 350 to 1 in secondary schools.

The national average is actually 477, according to data from the State Nonfiscal Public Elementary/Secondary Education Survey.

Data from 2004 indicates that Michigan's current ratio of students to school counselors is approximately 587 to 1; double the recommended ratio. While an improvement from the 1997 ration which was 1:709, this still represents a major barrier to providing effective guidance and counseling services, especially the individual work with a student on post-secondary planning.

One AMSC member working in a suburban high school is responsible for 650 freshman students. While this particular school counselor assists students with career planning, course selection, and post-secondary options, this person (as with many of other school counselors) could be working more effectively if given the opportunity to work within a more reasonable counselor-to-student ratio.

2. School Counselor Shortage

In the late 1990's all 10 higher education institutions in the state that educate school counselors were reporting difficulty in attracting students into school counselor training programs. In 1999, a document prepared by researchers from five of the ten universities that educate and recommend certification of school counselors, was released entitled "Preliminary School Counselor Endorsement: A Proposal to the Michigan Department of Education Professional Standards Commission." The proposal outlined reasons for school counselor recruitment

difficulties, and the resulting shortage of school counselors. The proposal also included data about the magnitude of the problem for Michigan school districts.

A May 13, 2004 presentation to the Professional Standards Commission ("Experimental Program Extension Request - Preliminary Employment Authorization for School Counselors," written and presented by Suzanne M. Hobson, Ed.D., Richard W. Fox, Ed.D., and Beatrice Harrison) as summarized below, described:

"Three Primary Approaches To Addressing the School Counselor Shortage:

- ***Preliminary Employment Authorization*** *- first approved as an experimental program in April 1999, targets school teachers wishing to become school counselors, and now also benefits non-teachers;*
- ***Passage of Public Act 288 of 2000*** *- removed the requirement of a teaching certificate for school counselors;*
- ***Establishment of the Temporary School Counselor Authorization (also a provision of Public Act 288 of 2000)*** *- benefits out-of-state non-teachers wishing to become school counselors in Michigan."*

These approaches are generally supported by professionals in the field and educators, especially the Preliminary Employment Authorization.

One additional approach was the allocation (briefly) of 32h funding to provide tuition incentive grants to increase the number of school counselors. More detail on this effort follows.

B. Under-Utilization of the MI Comprehensive Guidance and Counseling Program

While we are not aware of any studies documenting the under-utilization of the Michigan Comprehensive Guidance and Counseling Program, our members strongly believe that more needs to be done to initiate, or in some settings, expand its use.

In 1999, our members were successful in lobbying the state legislature for a new Section 32h of the State School Aid Act, which provided $10,000,000 as additional resources to support the coordination of school counseling services and to increase the number of qualified school guidance counselors. Of this amount, $5,000,000 will be administered by the Office of School Excellence - Learning Support Unit for the award of grants to local educational agencies (LEAs), and public school academies (PSAs) to initiate or expand the Michigan Comprehensive Guidance and Counseling program. Unfortunately, this funding was cut by from the budget shortly after its appropriation in response to the state's budget crisis.

C. Non-Guidance and Counseling Demands on School Counselors

Scheduling: In many schools it is the counselor's sole responsibility to not only assist students with planning their schedules but also to create the master schedule for the school. Creating the master schedule is an administrative role that is extremely time-consuming and takes the counselor away from working with students.

MEAP Testing: The coordination and administration of MEAP testing often falls under the responsibilities of the school counselor. This yearly test, along with make-up testing, takes an enormous amount of time. It is estimated by some school counselors that they spend up to 40 hours on MEAP testing. Again, this non-counseling duty draws the counselor away from activities such as working with students individually or in groups in making post-secondary plans.

Reduction in Ancillary Staff - recent cuts in state funding to schools have affected the work of school counselors. In addition to increasing counselor caseloads, ancillary staff who provide supportive services to school counselors have been reduced. In some schools, Career Development Facilitator positions (CDFs) have been eliminated. These individuals worked in tandem with school counselors to deliver career development and planning to their students. Additionally, secretarial staffing has been reduced causing school counselors to add clerical duties to their increasing responsibilities and growing caseloads.

D. Other Factors Which Inhibit Effective Student Post-Secondary Planning

Meeting AYP and Making the Grade - Schools are under increasing pressures to meet adequate yearly progress (AYP) and high report card grades under the Education Yes! Requirements. Teachers and administrators, concerned with achieving these standards, often times are unwilling to allow counselors classroom time to deliver guidance lessons or to release students either individually or in groups, for guidance in post-secondary planning. While they see the value of future planning, the importance of AYP and "making the grade" supercede guidance activities.

Overlooking the Role of School Counselors in School Reform - Despite the national call to enhance educational opportunities for all students, school counselors are too often seen as ancillary to the mission of schools and are not included as an integral part of standards-based school reform." (House & Hayes, 2002). School counselors are the frontline professionals that work with students to encourage them to take rigorous courses that will prepare them for college and other postsecondary options.

III. RECOMMENDATIONS

Support Efforts to Address The School Counselor Shortage - The state must continue to support initiatives, including tuition incentive grants, to increase the number of school counselors in the state.

Replace the MEAP With A Different Curriculum-Based Test - If implemented properly, this change would allow counselors to spend more time working directly with students, rather than spending up to four weeks per year administering the MEAP.

Improve Student-to-Counselor Ratios - Greater awareness is needed at the local, state, and national level regarding the impact that high counselor caseloads has on the successful delivery of a comprehensive guidance and counseling program. School counselors who are able to work under the recommended ratios of 250:1 are able to not only assist students with post-secondary planning, but also with personal, social, and other educational concerns.

Include School Counselors in School Reform - School counselors are the eyes and ears of what occurs in a school building. They are agents for change, advocates for students, and collaborators with parents, teachers, administrators, and the community. School counselors, given the opportunity, promote high standards and expectations for all students.

Encourage and Seek Out Partnerships at the State Level - School counselors are collaborators within their communities, but also desire to be represented and involved in Lansing. In Section II. B. 1 of Executive Order No. 2004-32: Lieutenant Governor's Commission on Higher Education and Economic Growth, it is states that the Commission will examine strategies to "increase the number of students in Michigan who attain the skills critical to postsecondary success before graduating from high school." Including and involving school counselors will be instrumental in the success of obtaining this goal. This past fall, the Association of Michigan School Counselors became a supporter and promoter of College Goal, Governor Granholm's initiative to double the number of students who succeed in college. Additionally, the AMSC website (www.michiganschoolcounseling) includes recommendations to double the number of students earning college degrees in Michigan within 10 years.

Students Deserve To Know All Of Their Options - Our job as school counselors is to help students look at, and understand, all of their options. A four-year college degree is only one of many post-secondary options.

IV. One Final Point

There is one final point, yet to be mentioned, and we felt it best expressed in the words of the same Mid-Michigan School Counselor, who when speaking from her heart, may best summarize the final concern and recommendation of AMSC:

> *"The definition of insanity is to keep doing what you have always done and expect different results. To say that we just need to focus on more academics and higher level academics will not help. I would add that we are starting to see in our elementary and middle schools a genuine effort to get kids to think about post-secondary options. It is not in every nook and cranny of the state, but we know that many more kids are being exposed to this now. The follow up also occurs in high schools as well. One common method of providing this is to show students how the school's curriculum matches up with the six Career Pathways.*
>
> *Efforts such as these are widespread, and growing. They are growing because most colleges are teaching Master level students who are interested in going into school counseling a new set of skills. Counselors today recognize the need for a better use of their time are replacing them. By meeting with students in classroom settings on a regular basis to impart information and skills in the areas of Career Planning and Exploration, Knowledge of Self and Others, Educational/Career Tech Development, counselors will have the opportunity to make a real difference in the lives of students. And the state will start to see the changes in students' post-secondary planning that they want to see. The caveat of course is that there are enough counselors hired in schools to do the work parents and policy makers want to see done. Kids are not going to stop having personal crisis's, and a counselor will not be able to plan to spend a day in classrooms, unless there is improvement in counselor-to-student ratios."*

V. Attachments

A. "Credentials for Michigan Counselors: Two Primary Paths," (Suzanne M. Hobson, Ed.D, AMSC Connections. Vol. 1, Issue 2).

B. "An Overview: The Michigan Comprehensive Guidance and Counseling Program"
(From website, Michigan Department of Labor and Economic Growth, Career Education:

http://www.michigan.gov/printerFriendly/0,1687,7-122-1680_19117_19149---,00.html).

C. "High School Career Exploration Programs: Do They Work?" (Visher, Bhandari, Medrich, Phi Delta Kappan. October 2004, Vol. 86, Iss. 2).

D. "Is High School Career and Technical Education Obsolete?"(Kenneth Gray, Phi Delta Kappan. October 2004, Vol. 86, Iss.2).

High School Career Exploration Programs: Do They Work?

Authors: Mary G. Visher, Rajika Bhandari, Elliott Medrich

"Phi Delta Kappan," October 2004, Vol. 86, Iss. 2; pg. 135

Abstract (Article Summary)

Current school reform efforts aim to increase the numbers of students who graduate from high school and go on to pursue postsecondary education or training. Visher et al look at seven types of career exploration programs to determine if this is an effective approach for accomplishing these goals.

Full Text (2510 words)

[Headnote]

Current school reform efforts aim to increase the numbers of students who graduate from high school and go on to pursue postsecondary education or training. The authors look at seven types of career exploration programs to determine if this is an effective approach for accomplishing these goals.

RIGHT NOW, many schools are scrambling to comply with the requirements of the federal No Child Left Behind (NCLB) Act, and educators are seeking strategies to boost achievement and move more students into higher education or a promising career. Raising academic standards for all students is the right thing to do, but standards-based school reform sometimes seems to ignore the fact that many students are simply not engaged sufficiently by academic study. If allowed to remain unmotivated and disengaged, these students risk failing in high school or dropping out, thus short-circuiting their chances for future success.

We need strategies to persuade these young people that graduation and further studies are not only attainable but, for most occupations in this global economy, necessary. For many students, programs and activities that expose them to various careers can engage them in school and provide them with options. Many students know little about their career options, their own talents, what it's really like to work, and what preparation is needed for the kinds of jobs or further education that will set them on a career path. And overwhelmed school guidance counselors, with an average of 315 students per full-time counselor, can only do so much.1

Our public schools have long lived with the tension between their academic and vocational missions. But policy makers and school staff members have come to see that the goals of these missions are not mutually exclusive and, in fact, can be complementary. All students can benefit from more knowledge about career options and the skills and training required for different jobs, just as all can benefit from rigorous academic study. This was the central idea behind the federal School-to-Work Opportunities Act of 1994 (STWOA), which enabled states and school districts to fund a

variety of programs and activities that would help high school students make informed decisions about their postsecondary education and career plans.

Although the STWOA expired in 2002, it did help schools systematize, enrich, and expand their career exploration programs. Although estimates vary, approximately 43% of high school students had participated in at least one career exploration activity by 1997, and as many as 60% had done so by 2000.2

How best to incorporate career exploration activities into the high school curriculum remains the subject of significant debate among educators. Critics worry that college-bound students will see their academic classes "diluted" with vocational material or that they will "waste time" on pursuits such as job shadows instead of focusing on learning core academic skills in preparation for college. The opposite, but equally critical, view is that these programs, much like old tracking systems, will widen the divide between high-achieving and low-achieving students by diverting the latter group into vocational courses and away from rigorous academic study.

Studies of career exploration programs are just now beginning to appear, providing some findings to inform this debate. Although we now know something about the characteristics of both the programs and the students who participate in them, we still know little about their impact. Small-scale studies, anecdotes, and case studies abound, but to date there has been no rigorous assessment of the effects of career exploration programs.

Since the overarching goal of these programs, as well as virtually every other school reform effort, is to help more students graduate and go on to postsecondary education or training, we decided to examine how career exploration programs influence high school graduation and postsecondary enrollment rates.

STUDY QUESTIONS AND DATA

In our study, we analyzed data from the National Longitudinal Survey of Youth 1997 (NLSY97), which tracks 8,984 young people born between 1980 and 1984 from middle school through high school and into college and careers.3 The NLSY97 consists of data from an initial interview and several follow-ups with the survey respondents, along with a survey of their parents and of staff members from the high schools the youths attended. Each survey included questions about participation in career exploration activities. Of the total NLSY97 sample, our initial study sample included 4,013 students who were between the ages of 12 and 18 in 1997. We then expanded this sample to 5,372 students in order to include those who were between the ages of 14 and 20 and were in high school or beyond in 2000.

We examined participation and its effects for seven types of career exploration programs (descriptions of which are provided in the sidebar below). We used matched data on students and their schools, comparing 1997 and 2000 data, to answer the following

questions:

* Who participated in career exploration programs?

* What are the characteristics of schools in which significant numbers of students participated?

* Did participation affect students' high school completion rates and their preparation for college?

* Did participation influence students' enrollment in postsecondary education?

PARTICIPATION IN CAREER EXPLORATION PROGRAMS

We found convincing evidence that career exploration programs are improving the future prospects of a large and diverse group of high school students by increasing the likelihood that they will graduate and go on to postsecondary education.

Participation in career exploration programs expanded substantially between 1997 and 2000. Participation by students in all grades (except ninth) in at least one of the seven career exploration programs increased from 38% of all students in 1997 to 53% in 2000. Some programs experienced greater growth than others during this period, though participation increased in all programs. For example, students participating in career majors increased from 19% in 1997 to 31% in 2000, participation in internships and mentoring nearly doubled over the same period, and participation in job shadows increased from 13% to 20%.

As might be expected, students attending vocational schools participated more than those in comprehensive high schools, and schools offering a large number of career exploration activities had greater participation as well. We also explored whether students in high-poverty schools were more likely to participate in career exploration programs than were their peers attending more affluent schools. Since schools with high percentages of minority students are often also high-poverty schools, we looked at whether or not there was a Title I program in a school, as well as at the percentage of minority students. We found that neither the percentage of minority students nor the percentage of those in poverty in a school made a significant difference in the rate of participation in career exploration programs.

Students from diverse backgrounds and with varying levels of achievement participate in career exploration programs. Many believe that career exploration programs attract only vocationally oriented students. Our findings show this stereotype to be false. While there was a tendency for a certain "type" of student to be enrolled in tech prep, none of the other programs could be easily characterized by the : demographics of their participants, either in 1997 or in 2000.

Minority students are somewhat more likely than white students to participate in some

programs, such as mentoring and career majors, but this difference disappears when parents' educational levels are factored in. Similarly, on average, students' level of academic achievement is not linked to participation. Students considered academically at risk (those who earned mostly C's and D's in eighth grade) and those who are high achievers (those who earned mostly A's and B's in eighth grade) are equally likely to participate in career exploration programs.

Here are two composite portraits that illustrate some of our findings:

Student A is a black male whose parents have low levels of education. He lives in an urban area and earned mostly B's and C's in eighth grade. He attends a comprehensive high school that serves a low-income, high-minority neighborhood. The probability of student A's participating in career exploration was 36% in 1997 and 47% in 2000.

Student B is a white female with well-educated parents who lives in an urban area. She earned mostly A's and B's in eighth grade and is enrolled in a comprehensive high school, in which she takes college-prep classes. Her school serves an affluent, mostly white neighborhood. The probability of student B's participating in career exploration was 41% in 1997 and 53% in 2000.

There is some variation across programs. Students with higher grades are more likely to participate in job shadows and school enterprises than are those who have lower grades (an effect that disappears after controlling for other student and school characteristics). However, students taking a vocational course of study are decidedly more likely than those in a general academic or a college-preparatory course of study to participate in career exploration programs, especially in career-major and tech-prep programs.

THE BENEFITS OF CAREER EXPLORATION PROGRAMS

Students who participate in career exploration programs are more likely than nonparticipants to take college entrance and Advanced Placement exams. Most students take college entrance or Advanced Placement (AP) exams because they intend to apply to college. Our findings show that participating in career exploration programs does not deflect students from that goal. In fact, students who had participated in at least one career exploration program were slightly more likely than nonparticipants to take the SAT or ACT tests.

There was some variation by program. Students participating in career majors, job shadows, school-based enterprises, internships, and mentoring programs were significantly more likely to take college entrance exams than nonparticipants. Tech-prep and cooperative-education students, on the other hand, were equally or somewhat less likely to take these tests.

Enrollment in AP courses is an indicator of both a student's postsecondary plans and of higher-than-average academic achievement, as good academic standing is usually required to take these classes. Students in career exploration programs - mostly those in

career majors and internships- were somewhat more likely to take at least one AP exam than were nonparticipants. Students in tech-prep, job-shadow, cooperative-education, and mentoring programs were not more likely to take an AP class than other students.

Students who participate in career exploration programs are more likely to graduate from high school. Students with career exploration experience were significantly more likely to complete high school than students without such experience, even when we controlled for other student and school characteristics. Among the high school students scheduled to graduate in 2000, a significantly larger percentage of those who had participated in at least one career exploration program completed high school than of those who had not. Students in internships and mentoring programs had the lowest dropout rates.

Here are composites of two students who illustrate our findings:

Both are black males from families of low socioeconomic status. They live in an urban area, earned poor-to-average grades in eighth grade, and are enrolled in a comprehensive high school with a Title I program and a high percentage of minority students. The key difference between them is that one participates in career exploration activities and the other does not. The student who does not participate in career exploration has a 52% probability of completing high school, compared to the 72% probability of the student who does participate.

Students who participate in career exploration programs are more likely to go to college and to attend a two-year rather than four-year institution. Career exploration programs are not only accomplishing their goal of introducing educational and career options to students, they are also opening doors to higher education for many students. A higher proportion of high school graduates who had participated in career exploration activities enrolled in college than did nonparticipating graduates, even when we controlled for differences in student and school characteristics. Career exploration programs helped push students who otherwise might not have gone to college to enroll, with most enrolling in two-year rather than four-year colleges.

Here are composites of two students who illustrate our findings:

Students A and B are black males from families with low socioeconomic status who live in an urban area. They earned poor-to-average grades in eighth grade and are enrolled in a general academic program at a comprehensive high school. Their high school has a Title I program, high minority enrollment, and a relatively weak career exploration program. Student A participates in a career exploration program, and student B does not. Student A has a 24% probability of enrolling in a postsecondary institution, while student B has a 15% probability of doing so.

While raising academic achievement must be the central focus of an education policy aimed at leaving no child behind, career exploration programs can play an important supporting role. Our study provides evidence that such programs can be a useful strategy for keeping students in high school and preparing them for further study or training. The

participation in these programs by students with a variety of abilities, backgrounds, and aspirations should quell fears that career exploration activities will divert college-bound students away from higher education or water down the academic curriculum. Schools need to be able to engage, inspire, and advance students with every kind of interest and ability, including those not highly motivated by academic study. The evidence that is emerging suggests that career exploration programs are one way to accomplish just that.

[Sidebar]

Types of Career Exploration Programs

* Career mayors. Students take a coherent sequence of courses organized around a broad career area, such as health sciences.
* Cooperative education. Students alternate academic and vocational studies with a job in a related field.
* Internship/apprenticeship. Students work for an employer, with or without pay, for a short time to learn about a specific industry or occupation.
* Job shadow. Students follow an employee at the workplace for one or more days to learn about an industry or occupation or simply what it's like to go to work.
* Mentoting. Students are paired with an employee who helps them master specific skills and knowledge and assesses their performance over time.
* School-sponsored enterprise. Students produce goods or offer services to be purchased or used by others. Students are typically involved in managing the enterprises.
* Tech prep. Students take a planned program of study with a defined career focus that links secondary and postsecondary education.

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Is High School Career and Technical Education Obsolete?

Kenneth Gray. **Phi Delta Kappan**. Bloomington: Oct 2004.Vol.86, Iss. 2; pg. 128, 7 pgs

Abstract (Article Summary)

In the face of growing sentiment against high school career and technical education, Gray examines the long-standing and still unresolved debate over whether a classical/academic curriculum is appropriate for all secondary students. He comes down squarely in favor of offering a choice.

Full Text (5480 words)

[Headnote]

In the face of growing sentiment against career and technical education, Mr. Gray asks us to take a hard look at the advisability of limiting high school students' options.

AS IF ORDAINED by some law of applied public policy, the viability of high school vocational education - now called Career and Technical Education (CTE) - is once again being questioned. The current federal Administration appears to hold the CTE curriculum in low regard. Its recommendation regarding the reauthorization of the Perkins CTE funding legislation is basically to scrap it. The Administration proposes instead to redirect federal funding for high school CTE, tech prep, and even postseccondary technical education toward high school academic education.

Perhaps the real issue is money - or the lack of it - for other reform efforts, and not the value of CTE. As Perkins funding is the only pot of federal cash that goes mainly to secondary education, some suggest that the real motivation for eliminating CTE is to free up that money to fund the secondary school portion of the underfunded No Child Left Behind (NCEB) Act. Regardless of the Administration's true motive, almost 100 years of federal assistance for high school CTE could end abruptly.

According to the U.S. Department of Education (ED) appointees, all teens want to go to college; therefore, high school should be only about teaching English, math, and science. Proponents of this view argue that the traditional academic curriculum is the best approach; after all, it worked for them, and it will work for all students once we get highly qualified teachers into every classroom and certify the deficient via standardized testing. The implication is that CTE is incompatible with NCEB and, therefore, obsolete. One ED appointee, now retired, went so far as to characterize CTE programs as preparing students for careers as shoe repairers.1

Yet there is cause to question such conclusions. Unlike English, math, and science, CTE

is an elective within the high school curriculum. No student has to take it. Yet, according to ED's transcript analysis, virtually every high school graduate takes at least one course in CTE, and about 25% of students are concentrators, taking three or more credits in a "single labor market" (SLM) area.2 Whereas no student has to take CTE, one can assume that those who do, their parents, and the local school boards that finance the lion's share of CTE find it of value.

Can they all be making a mistake? Would students elect CTE and their parents agree to it if it offered nothing more than shoemaking? The present levels of student participation in and local financial support of CTE alone suggest that perhaps it is not as obsolete as claimed. Perhaps it is time to reconsider why we have CTE in our high schools in the first place and whether these reasons are less valid today than in the past.

Then again, if the goal is really to leave no child behind, curriculum choices are necessary at the high school level. No single program of study will work with all students. CTE is to some students what Advanced Placement and honors courses are to others. As I will argue subsequently, if one includes students who are at risk of dropping out of high school, students who enter the work force directly after high school, and students who aspire to attend college at the pre-baccalaureate technical education level, then CTE is an important complement to the standard academic curriculum for more than half of all high school students - an alternative these students find more relevant and thus more educationally effective than a purely academic program of study would be.

A CURRICULUM DEBATE

It is fascinating to observe the degree to which the current debate about CTE in high schools is a historical rerun. The main question is whether or not students are best served by a common academic curriculum or by a differentiated curriculum that offers alternatives. In the early 1900s, it was exactly such a debate that first led to the rather widespread adoption of CTE.

At the turn of the last century, high school enrollments mushroomed as more and more families found it economically possible to keep their children in school beyond the eighth grade. To that point, only the children of the wealthy had attended high school, and for these students one curriculum- the classical/academic curriculum - was just fine. The new breed of high school student, however, found little of interest in this program of study. Much to educators' alarm, many of these new high school students soon dropped out, causing something of a national scandal. The specter of hordes of out-of-school but unemployed teens roaming the streets was enough for the establishment to demand action. The solution was to have more than one program of study. Thus the high school curriculum was differentiated into academic and vocational education.

This solution was attended by controversy. John Dewey denounced it as mean and illiberal. Democracy, he argued, demanded a uniform common education for all children. The role of the schools was to prepare all students as if they were someday going to be President. CTE, if it were to exist at all, should serve as "education through occupation,"

meaning that occupational content could possibly be an effective modality or context for teaching academics and citizenship, but, lectured Dewey, the schools should have nothing to do with preparing students for work. Proponents of CTE ridiculed such ideas as idealistic and elitist, if not downright unfair, pointing out that too many high school students found little of value in the classical/ academic curriculum and left school early. The role of the schools, they argued, was to prepare students for life. For most youths, this included preparation for work.3

The debate remains unresolved some 100 years later. Many, particularly those somewhat removed from the realities of educating teenagers, seem to agree with Dewey, while at the local level most high school principals readily admit that, without CTE, their schools would have little to offer many students. Critics of CTE apparently are not necessarily against choice in genera - just one choice in particular. Critics of CTE seem to have little problem with some differentiation, namely Advanced Placement and honors programs populated by their kids, the academically blessed from upper-middle-class households - and, of course, special education.

So why the rejection of CTE in particular? In part, it stems from stereotypes about CTE - it prepares students only for work after high school, and its students are mostly male, too often minorities, academically backward, and destined for dead-end jobs. While this characterization may or may not have been correct in the past, it is not accurate today. Both CTE and the students who take it changed much in the 1990s.

CTE AND ITS STUDENTS

Much in CTE is different today from what it was just 10 years ago, beginning with its mission. In the late 1980s, students' outcome goals for CTE were expanded from transition from school to work to transition from school to college or work. Included in federal legislation was a new program called tech prep, which offers instruction in both technical and integrated academic skills. The goal of tech prep is to prepare students for postsecondary education, particularly pre-baccalaureate technical education. Today virtually all high school CTE programs have a tech-prep component. Most CTE students complete a traditional academic program as well as a CTE concentration, and the majority now go on to college, not directly to work.

The transformation of CTE brought about by tech prep has been dramatic. Because CTE is now viewed by many students as an alternative route to higher education, the enrollment declines of the 1970s and 1980s have been reversed, with CTE students representing one in four of all students. Most dramatic is the composition of the CTE student population. There are no significant race or gender differences between CTE students and the general student population.4 And most CTE students are enrolled in business, health care, trade/industry, and information technology programs.

Does participation in CTE prevent students from taking academic courses? Among CTE students, 80% complete the same number of credits in math and science as their peers who take the academic program only. Those CTE students who do not are primarily

special-needs students exempted from state graduation requirements. Of the 80% who complete an integrated CTE and academic program, 60% go to college upon graduation, with more than 50% of those enrolling in pre-baccalaureate technical programs.

Does participation in CTE improve a student's academic skills? Anecdotal data - the only kind available at present - suggest the answer is yes. While CTE concentrators as a group enter high school less prepared than academic-only students, the achievement gap is either small or insignificant by the time they graduated.5

This does not seem to be the picture of a program that is obsolete or ineffective. Twenty-five percent of all high school students voluntarily enroll in the CTE program, and it seems to be working. Some would argue, however, that the real question is the degree to which CTE's goals and outcomes address the true needs of the nation and its youths. It could be, for example, that CTE is effective but irrelevant. So let us turn to the question of relevance.

THE QUIET DILEMMA IN HIGHER EDUCATION

Aside from strengthening our democracy, public education's role is arguably to promote individual opportunity and economic growth. This suggests that the viability of educational programs should be measured against the degree to which they promote these ends. It is of interest to ask, for example, what problem NCLB is supposed to be solving. Better yet, what problem is more math and science instruction and mandatory testing supposed to solve?

A consensus has developed that the true problem in this country - the main barrier to individual opportunity and economic growth - is that students are not as good in math and science as they should be and that even more of them should be going on to college than do currently. If this is the problem, then perhaps, while CTE is working well, it is not addressing the core issues and is thus obsolete.

But perhaps the exact opposite is true. Perhaps it is NCLB that is misguided and fails to address the true fundamental problems and needs of today's youths. Perhaps CTE holds the most promise of opportunity for many students and for national economic growth.

One way to sort out public education's core challenges is to examine what happens to today's students during and after their public school experience and what programs of study do or do not improve their situation. Let's take a hypothetical class of 24 first-graders and, using national data, see what happens to them over the next 12 to 16 years. The results are rather different from what might be assumed on the basis of our current rhetoric and policies and suggest that CTE may in fact be more in line with the real issues than its critics would have us believe.

The first reality (one that gets little press these days but no doubt soon will) is that one in three of these first-graders will not graduate from high school. The National Board on Educational Testing and Public Policy estimates that in 2000 33% of students who were

in ninth grade four years earlier dropped out, an increase of 4% since 1990.6 In comparison, the dropout rate is lower in Finland, France, Italy, Poland, and Germany, and it is only 6% in Japan.

While the percentage of all Americans who have a high school education has grown (88%), the growth is primarily due to the increase in the number of GED (General Education Development) recipients, not the number of high school graduates. In some urban centers, 50% of the students do not graduate from high school, and in rural America things are only slightly better. Unless one is willing to argue that four years of high school experience is not preferable to the GED, the need to reduce high school dropout rates must be addressed, especially when high-stakes testing is predicted to exacerbate the problem. The bottom line is that, when it comes time to graduate from high school, only 18 of our original 24 first-graders will be left.

The second reality is that, contrary to public perception, six of these 18 students (33%) who graduate do not go to college but go directly into the work force, enlist in the military, or become homemakers. While 90% of high school students reportedly indicate a desire to go to college, I would argue that, in light of today's one-way-to-win mentality, they do not dare say anything else. Perhaps a better indication of what they want to do is not what they say but what they actually do; and for about a third, what they do is go to work.7

The rhetoric of tuition-hungry institutions to the contrary, few barriers to college remain for most teens, including the academic skills needed to tackle college-level work or the ability to pay the bill. For most teens the door to college is wide open, but the percentage of students who matriculate directly after high school has hovered around 65% for the last 1 5 years. This was true even during the go-go days of the late 1990s, when family income was growing, tuition costs were relatively stable, and financial aid was more readily available.

In light of the few barriers to higher education for the vast majority of youths, one must conclude that about onethird of graduating high school students are not interested in attending college - at least not immediately after high school. This should not be surprising. As anyone who has ever taught high school will attest, even among teens who attend the very best high schools, many simply hate school. They have never done well in school, see no relevance in it, never do assignments, and habitually cut classes or are truant. Why should we be surprised that these students do not want to go to college? More to the point, why do policy makers seem to want to deny the existence of students who exhibit these attitudes and behaviors? Perhaps they hope that more math and science instruction and more standardized testing will turn them around.

Well, what about the 12 students left from our first-grade class? They are off to college, but relatively few are successful there. Depending on the type of institution (two-year, four-year, public, or private), one-fifth to one-third of those who enter college will not make it to their sophomore year. Of those who go to a two-year college hoping to transfer to a four-year institution, only one-third will do so. And, from this latter group, another

one-third will drop out at the university level, leaving a total success rate of no more than 11%. Among those who pursue a four-year degree directly, 25% will transfer to another college at least once, and six years later, according to the latest ED data, only about 60% will have graduated.8

Thus the third reality is that, while half of our first-grade class did go to college, half of those students left without completing a degree. The research is quite clear: labor market advantage from higher education comes from graduating, not just attending. In most cases, dropouts leave with only loan burdens, which they must try to pay off with salaries from jobs that most of them could have gotten right out of high school.

At this point I need to stress that most college dropouts do not leave for academic reasons. Believe it or not, it is quite difficult, indeed nearly impossible, to flunk out of most colleges these days; students who do so do not pay tuition and leave behind empty seats. At most colleges in the U.S., keeping students around is the priority, not flunking them. This is called "enrollment management" - students who do poorly may be put on probation, may be required to take a reduced course load, or may change their major, but they are seldom asked to leave. My contention is that, among those who drop out of college, the decision to matriculate was for the most part a default decision in the first place. To be specific, these students report that they are going to college to get a better job but do not have even the most rudimentary career goals to motivate them to master college-level work, let alone choose a college major.

The point is that the presence of more academics in high school is not, in my view, going to reduce college dropout rates. The reality is that students who enter college with specific career goals will overcome academic deficiencies in order to graduate, while those without a purpose are apt to just leave - even if they are academically talented. At any university, the dropout rate for students who enter without declaring a major is always much higher than that of those who attend committed to a course of study. And it is unclear how more academics in high school will make a difference. But perhaps CTE can!

Now, of our original 24 first-graders, there are six who graduate from college. They are the winners, right? Wrong! The reason is the dark secret of the 1990s - underemployment. About half of four-year college graduates will end up having to take jobs that are not commensurate with their level of education, jobs they probably could have gotten right out of high school. According to ED's Baccalaureate and Beyond study, 43% of recent four-year college graduates said they held jobs that did not require a university degree, and, among those with degrees in the arts and sciences, two-thirds (67%) so indicated.9

Even though this group - the underemployed - will earn more than high school graduates, one should remember that college is not free. At public universities, two-thirds of all students are on financial aid, and two-thirds of this aid is in the form of student loans. Furthermore, who is to say that these students - academically blessed as they are - would not have earned more than the average high school graduate had they not attended college

at all? Perhaps college is really not an issue of value added but of sorting out. If so, it must be observed that, in fact, 87% of youths are sorted out. Perhaps CTE can do better.

LABOR MARKET REALITIES

There is one final component of the quiet dilemma. If one objective of high school education is to prepare students ultimately to compete for high-skills/high-wage occupations, it might be helpful to consider in which fields these job opportunities will be found. The conventional wisdom is that they will be in health- and technology-related fields. This is true if we are considering new job growth in the economy, but the common belief that the minimum qualification for these jobs is a bachelor's degree is not true.

Consider a case in point. Through 2010, the job of computer systems engineer, one that does require a four-year degree, is predicted to be the fastest-growing occupation in the economy on a percentage basis. The second-fastest-growing occupation on a percentage basis is that of computer support technician, which requires one or two years of technical education beyond high school. But there will be 100,000 more jobs available for computer support technicians than for systems engineers. While there is no global shortage of college-educated engineers, there is a shortage of technicians, so that when the demand is compared to the supply of qualified workers, the technician classification will offer the greatest opportunity. This is particularly true in the U.S., where 48% of these types of jobs had to be filled by foreign-born workers in the 1990s.10 Make no mistake about it, these jobs pay well: 83% of individuals with associate's degrees have the same annual earnings as those with four-year degrees.11

The question to be considered is this: What high school curriculum attracts, motivates, and prepares students for postsecondary training at the technician level? Not the college-prep curriculum; less than 5% of students taking the SAT I indicated any interest in this type of education. Perhaps the answer is CTE.

Now I do not intend to argue that CTE can solve all aspects of the quiet dilemma. But for students who 1) are at risk of dropping out of high school, 2) seek employment directly after high school, or 3) want to go to college at the one- or two-year level to prepare for preprofessional technical careers, CTE is arguably the most important curriculum in the American high school. Together, these three groups make up a majority of all high school students.

Further, CTE offers the only program of study in our high schools that prepares students to take advantage of high-wage opportunities arising from serious shortages of technicians and, by so doing, also addresses a significant threat to our country's economic growth. Finally, if the goal of high school education is postsecondary success and if success requires at least a tentative career plan, then perhaps an untapped potential of CTE is that it can provide an educational experience that helps students to form such plans.

CTE AND AT-RISK YOUTHS

National data suggest that CTE is the program of study taken by most of the students who are defined as being at risk of not persisting to high school graduation. In the state of Pennsylvania, for example, 48% of CTE concentrators fit into one or more special student population categories. In another national high school transcript study, 34% of the student cohort was categorized as being at risk, but they earned 43% of all CTE credits.12

And it is crucial to note that special-needs students who are enrolled in CTE are more likely to graduate from high school, to be employed in higher-paying trades, or to enroll in higher education.13 And numerous studies have demonstrated the positive effect of CTE on reducing high school dropout rates. The most recent study on this topic finds that taking CTE courses is strongly related to persisting to graduation. This effect was positive for any ratio of CTE to academic courses, but was maximized at a ratio of three CTE credits to four academic credits or roughly a 40% CTE to 60% academic ratio. Most important to this analysis, the dropout prevention effect of CTE was most dramatic for those students who were at greatest risk of dropping out when they entered high school: namely, students whose test scores and grade-point averages upon entering high school were one standard deviation or more below the mean.14

CTE AND WORK-BOUND YOUTHS

As indicated previously, about one-third of all high school graduates immediately go to work, not college. This percentage has been consistent through the 1990s, despite open admissions at most colleges, and it seems unlikely to change in the near future. Of course, all students who enter the work force directly do not take CTE, but maybe they should. While one-third of all young people go to work full-time after high school, 40% of CTE concentrators take this route; among at-risk students in CTE, 60% go directly to work.

When compared to non-CTE concentrators who go directly to work, CTE students earn higher wages, experience less unemployment, and are more likely to be employed in higher-wage segments of the economy. Regression analysis suggests that, when other moderating variables are controlled for, participation in high school CTE has the most positive effect on earning of all programs of study except for college prep. In that particular case, the positive effect is only for those students who go on to college and graduate, which is about 50%.15

CTE AND COLLEGE

The percentage of CTE concentrators who now go on to college after high school (60%) is only slightly lower than the percentage of students in the college-prep program who do so (72%). Of the CTE concentrators who go to college, about two-fifths pursue a bachelor's degree, and the rest continue their technical education at the one- and two-year college level. However, these are not typical college-bound students in one regard - their interests are in technician-level careers. Thus these students are not well served by a strictly academic program, which is almost totally non-contextual.

CTE, OPPORTUNITY, AND ECONOMIC GROWTH

As mentioned before, while literally hundreds of thousands of university graduates join the ranks of the underemployed each year, immigration data suggest that about half of high-wage, technician-level jobs are filled by foreign workers. During the 1990s, over a million foreign-born workers were admitted to the U.S. on H1b visas to fill mostly technical jobs. We can anticipate that changes in immigration policies after 9/11 will make filling these vacancies with foreign workers much more difficult than in the past, thus curtailing productivity and affecting economic growth.

The relationship of this labor market dilemma to CTE is that the tech-prep curriculum is the only program of study in our high schools that is specifically designed to prepare students for college-level education for jobs as technicians. And while the college-prep program of academic study arguably could also prepare students for technical education at the college level, at present it does not. Again, among students taking the SAT I, less than 5% indicate an interest in this type of college education. The primary feeder for postsecondary, pre-baccalaureate technical education is CTE with tech prep, in which students receive high-level applied math and science instruction and develop technical skills.

CTE AND DEVELOPING CAREER MATURITY

A final, and perhaps largely unrealized, contribution of CTE is its potential to provide all high school students with a hands-on, contextually rich environment to verify tentative career choices. This helps students to make more effective postsecondary plans, such as choosing a college major, thereby increasing the probability that they will succeed.

As I pointed out above, college students are much more likely to simply drop out than flunk out. For many, college is a default decision; not knowing what else to do or having nothing better to do, students apply with the hope - perhaps it is closer to the truth to say with their parents' hope - that they will find direction in college. Unfortunately, for most this does not happen. Instead, they either drop out or change majors and, more likely than not, graduate with a major in the arts and sciences with which only one-third will find employment commensurate with their education. Parents recognize the problem, with the vast majority indicating on polls that they support a definite role for high schools in helping students develop tentative career plans. Thus we find more and more high schools developing programs toward this goal, including instituting career pathways, career majors, etc.

The key to the success of these efforts is that they provide the opportunity for high school juniors and seniors to verify in a real-world context their tentative preference for careers. A recent assessment of the school-to-work program found, for example, that the closer career verification programs were to the real workplace environment, the more effective teens perceived them to be.16

Among those offerings preferred by teens were CTE in general and work

study/cooperative education/internship CTE programs in particular. For example, some CTE departments - typically equipped with modern, state-of-the-art technology equipment or simulators - now offer special short courses for baccalaureate-bound students, especially in engineering, health, electronics, and information technology. Meanwhile, it is the CTE faculty members who are the most likely to hold state certification in supervising school-sponsored work experience programs.

So, let us return to the original question: How are today's high school students best served? Should we, as argued by some federal government officials and implied by the language of NCLB, return to the 19th-century model of a common academic curriculum that assumes all high school students aspire to and are capable of pursuing a four-year college education? Or is the present system still superior, in which a high school program of study includes a number of options, such as CTE, Advanced Placement, special education, etc.?

I have argued here that the common academic curriculum approach offers little of relevance to more than half of all students, especially the 25% who drop out and the 30% who graduate and move directly into the work force. The lack of an alternative to strict academics is one reason why most dropouts choose to leave school in the first place. And while academics are important for any occupation, any labor market advantage for the work-bound high school student who is competing for jobs that provide career possibilities and a living wage comes from having occupation-specific skills as well.

Contrary to the arguments of some, CTE is not inconsistent with NCEB. Today most CTE concentrators take basically the same number and type of academic courses as non-CTE students, and they graduate with equivalent test scores. And even among the college-bound, some - namely teens who aspire to postsecondary, pre-baccalaureate technical education - find the traditional college-prep program alone irrelevant and opt for CTE as well. Meanwhile, the CTE experience holds the potential to assist all teens in verifying tentative career plans as a prerequisite to making their postsecondary plans.

Thus I argue that if - as suggested by NCEB language - the goal is to provide options to high school students after they graduate, then the way to do so is to ensure that options are available to them in high school programs of study. The argument can be summed up in one line: CTE is to some students what the honors curriculum is to others. It is an option that they find more relevant in light of their aspirations and talents. Without high school CTE programs, the high school dropout rate will probably increase; workbound students will graduate prepared only for low-skills/ low-wage, dead-end employment; and tech prep, the only high school academic program specifically designed to prepare students for college-level technician training, will be gone. Less CTE will mean less opportunity for students and, in the long run, less prosperity for us all.

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Five Misconceptions

There are 5 misconceptions about future labor market opportunities.

#1. In the future, most jobs will require a 4-year degree.

- **FACT:** Of the 5 million projected job openings annually from 1996-2006, only 24% will require a 4-year degree or higher.

#2. Most high wage jobs in the future will be in technical fields that require a college degree.

- **FACT:** The largest and fastest growing segment of the emerging technical workforce is occupations that do not require a 4-year college degree.

#3. Because 4-year college graduates earn more than those with less education, a 4-year degree guarantees above average earnings.

- **FACT:** In the labor market, above-average wages are a return **for occupational skills in demand,** not education per se.

#4. The total labor force demand for college graduates is sufficient to insure commensurate employment for all that receive a 4-year college degree.

- **FACT:** The US Bureau of Labor forecasts that, through the year 2006, 43% of 4-year college graduates will go under-employed annually.

#5. 4-year college graduates will displace non-degree holders in good jobs that do not require a college degree.

- **FACT:** 4-year college graduates will not displace non-degree holders **who have specialized occupational skills in demand.**

Program Elements

Organizational Framework, Processes, and Time

Content

Content Areas

- Career Planning and Exploration
- Knowledge of Self and Others
- Educational/Career-Technical Development

Program

Program Components and Sample Processes

Guidance Curriculum
- Structured Groups
- Classroom Presentations

Individual Planning
- Advisement
- Assessment
- Placement & follow-up

Responsive Services
- Individual Counseling
- Small group counseling
- Consultation
- Referral

Systems Support
- Management Activities
- Consultation
- Community Outreach
- Public Relations

Structure

Structural Components

- Definition and Mission Statement
- Facilities
- School and Community Advisory Committee
- Resources
- Staffing Pattern
- Budget

Michigan School Counselor Association Recommended Distribution of Total Counselor Time

	Elementary School	Middle/Junior High School	High School
Guidance Curriculum	30-40%	20-30%	15-25%
Individual Planning	5-10%	15-25%	25-35%
Responsive Services	30-40%	30-40%	30-40%
Systems Support	15-20%	15-20%	15-20%
	100	100	100